DOCUMENT RESUME

ED 478 349 RC 024 131

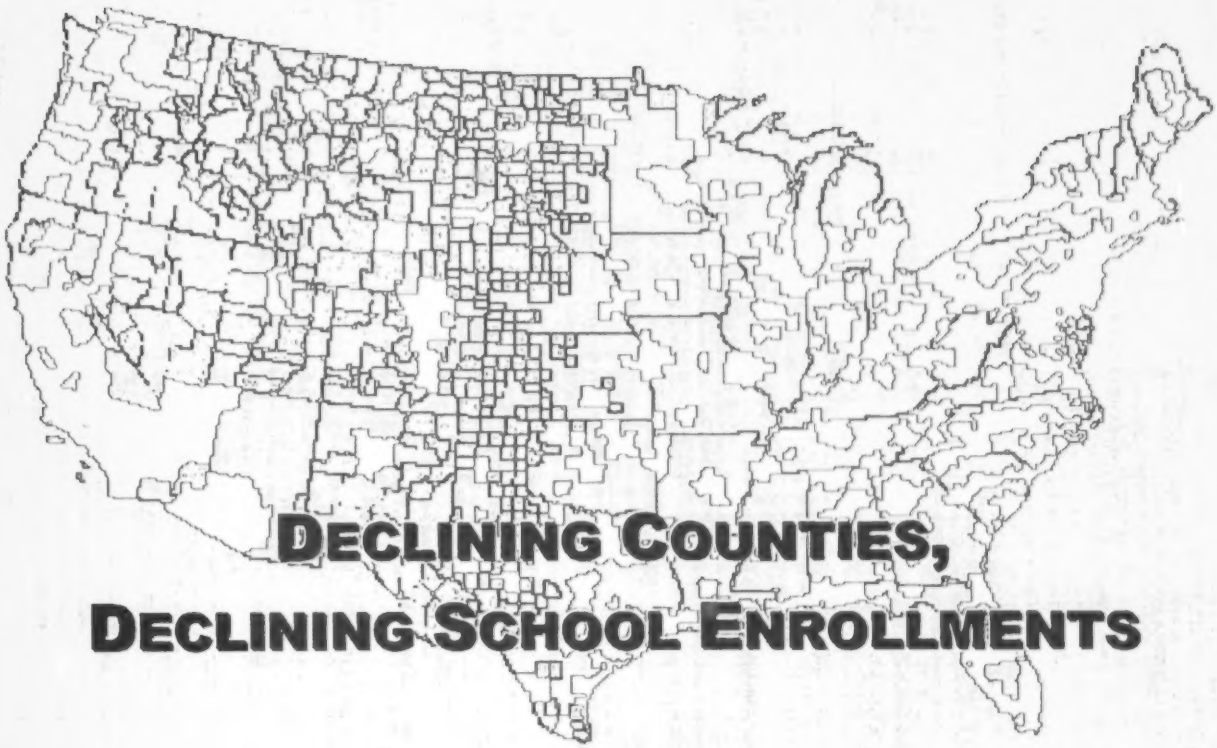
AUTHOR	Schwartzbeck, Terri Duggan
TITLE	Declining Counties, Declining School Enrollments.
INSTITUTION	American Association of School Administrators, Arlington, VA.
PUB DATE	2003-04-15
NOTE	17p.; Contains maps and figures that may not reproduce adequately.
AVAILABLE FROM	For full text: http://www.aasa.org/government_relations/rural/Declining_Counties.pdf.
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	*Declining Enrollment; Distance Education; *Educational Quality; Elementary Secondary Education; Enrollment Trends; Financial Problems; *Population Trends; Rural Areas; *Rural Population; *Rural Schools; Teacher Salaries
IDENTIFIERS	United States (Great Plains States)

ABSTRACT

Many rural areas have seen declining populations and school enrollments, which are expected to continue. Rural schools with declining enrollment face the threat of consolidation, loss of per-pupil funding, fewer instructional resources, teacher and administrator quality issues, and deteriorating school buildings. These problems are particularly severe in the Great Plains region, where many declining counties have very low population density and are considered "vacant" or "frontier" counties (fewer than two or fewer than six people per square mile, respectively). The number of frontier counties in the region has been steadily increasing since 1940. Attracting quality teachers and administrators can be a challenge in districts with declining enrollment, and this issue will only increase in urgency as No Child Left Behind is implemented. Rural states with declining enrollments have lower-than-average teacher salaries and higher percentages of teachers teaching out of their field. In addition, teachers and other staff are often overburdened in small rural districts. Lower teacher salaries are related to funding difficulties, which also impact the condition of facilities. Districts attempting to survive while ensuring quality education for their students have turned to such solutions as creative budget cuts, cooperative agreements with other districts, the 4-day week, distance learning and technology, and use of regional service agencies. (Contains 14 maps, figures, and data tables) (SV)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 478 349



DECLINING COUNTIES, DECLINING SCHOOL ENROLLMENTS

Terri Duggan Schwartzbeck
Policy Analyst, Issues Team

American Association of School Administrators
801 North Quincy Street
Arlington, VA 22203
(effective April 15, 2003)
703-875-0764
www.aasa.org

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
W. Henry
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
1

RC 024131

Introduction

Many rural areas have seen a decline in the present and future school populations. The source of this decline is threefold:

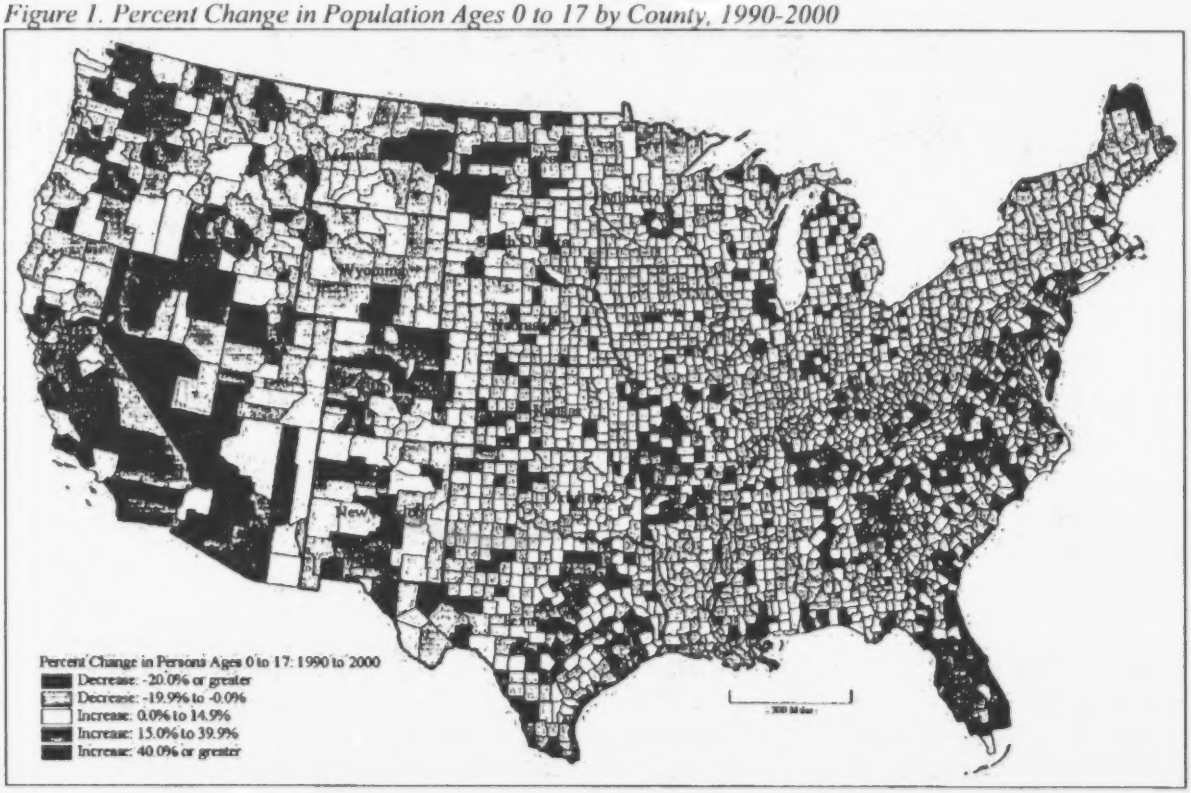
- a "graying," or increase in percentage of the population of senior citizens,
- the exodus of young families with children to the cities in search of better opportunities, and
- a decline in births.

Meanwhile, nationwide, public elementary and secondary enrollments are projected to rise. That increase is concentrated in mostly suburban and urban areas. Growing school districts face an assortment of challenges. Rural areas with declining enrollment face challenges, too, but different ones. They contend with:

- threat of consolidation;
- loss of per-pupil funding;
- fewer instructional resources;
- teacher and administrator quality issues; and
- declining school facilities or difficulty securing funds for repair or construction.

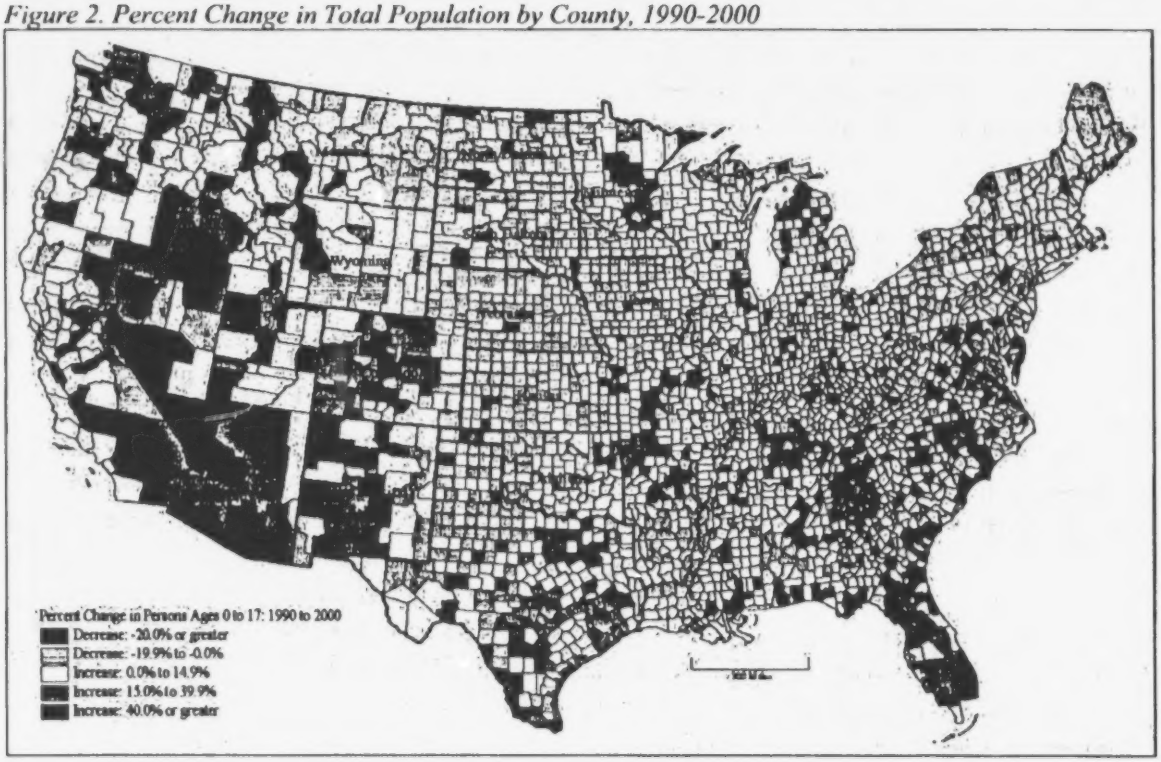
Figure 1 below highlights one way to identify these rural districts facing the challenges of declining enrollment. These districts have seen a steep decline in the 0 to 17 age group – the present and future student-age population. Any increase in student population is clearly clustered in urban and suburban areas of growth.

Figure 1. Percent Change in Population Ages 0 to 17 by County, 1990-2000


Wyoming
New
Percent Change in Persons Ages 0 to 17: 1990 to 2000
Decrease: -20.0% or greater
Decrease: -19.9% to -0.0%
Increase: 0.0% to 14.9%
Increase: 15.0% to 39.9%
Increase: 40.0% or greater

1

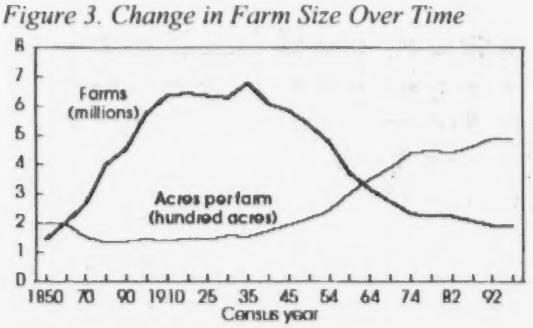
Figure 2. Percent Change in Total Population by County, 1990-2000


Wyoming
Percent Change in Persons Ages 0 to 17: 1990 to 2000
Decrease: -20.0% or greater
Decrease: -19.9% to -0.0%
Increase: 0.0% to 14.9%
Increase: 15.0% to 39.9%
Increase: 40.0% or greater

Additionally, as indicated above, many states are losing total population at a rapid pace. A comparison of Figures 1 and 2 – the decline in total population and the decline in present and future school-age population – reveals that declining enrollment is much more serious in the Great Plains states as well as Minnesota, Illinois, Indiana, Arkansas, Louisiana, Mississippi, Alabama, Kentucky, West Virginia, Pennsylvania, New York, Michigan, Maine, Oregon, Washington, and Idaho.

Total population decline in these states has been attributed to changes related to rural agriculture. Over the years, rural America has experienced fewer farms of larger size, fewer jobs on farms and fewer jobs supporting those farms in surrounding communities. Consequently, workers and their families are moving from agricultural areas to the cities in search of work.

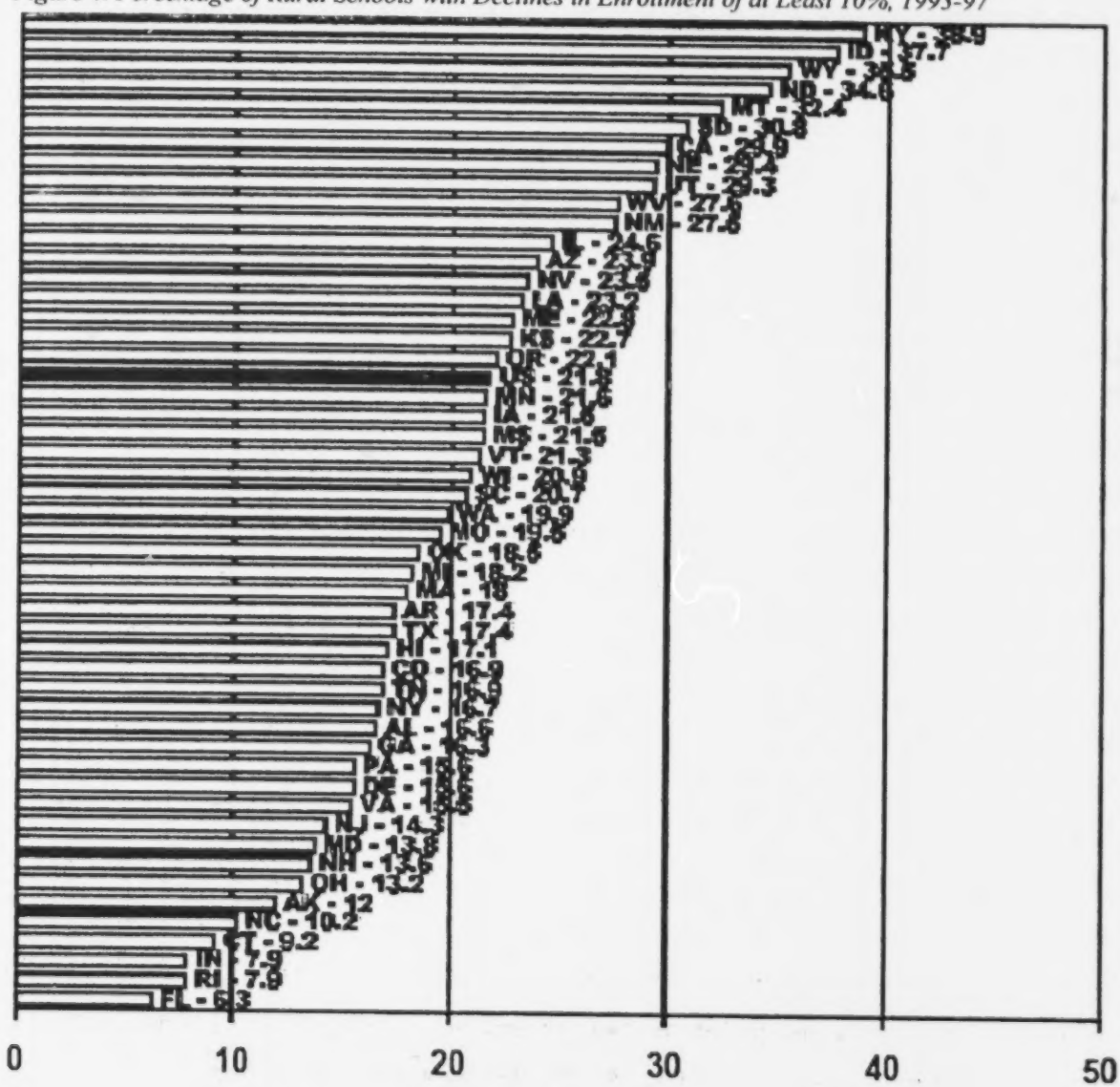
Figure 3. Change in Farm Size Over Time



Declining Populations, Declining Enrollment and Rural Schools

This decline in population manifests itself in the form of declining enrollment in many rural schools. The chart below indicates the number of rural schools with a declining enrollment of at least 10 percent. While many of the states with a higher number of rural schools with declining enrollment are in the Great Plains, many are also located in other areas that also indicated a decline in school-age population.

Figure 4. Percentage of Rural Schools with Declines in Enrollment of at Least 10%, 1993-97



BEST COPY AVAILABLE

Declining Enrollment and Declining Counties – An Issue in America's Frontier

The seriousness of declining enrollment in rural areas can be seen by looking at both population decline and population density. Many counties facing declining enrollment (top map) also have very low population density (bottom map). Many of these declining counties are also considered to be "vacant" (fewer than 2 people per square mile) or "frontier" counties (fewer than six people per square mile). In other words, the population in these counties is decline from little to less to none. These counties, indicated by dark purple and dark blue in maps below, are most likely to face the harshest consequences of declining enrollment: consolidation, loss of funding, community decline, lower teacher and administrator quality, lower-quality school facilities and fewer resources. Most of these counties are located in the Great Plains region, as well as in upper Minnesota, the Upper Peninsula of Michigan, Maine, as well as select counties in Oregon, Washington, Nevada, Utah and Idaho.

Figure 5. Percent Change in Persons Ages 0 to 17: 1990 to 2000

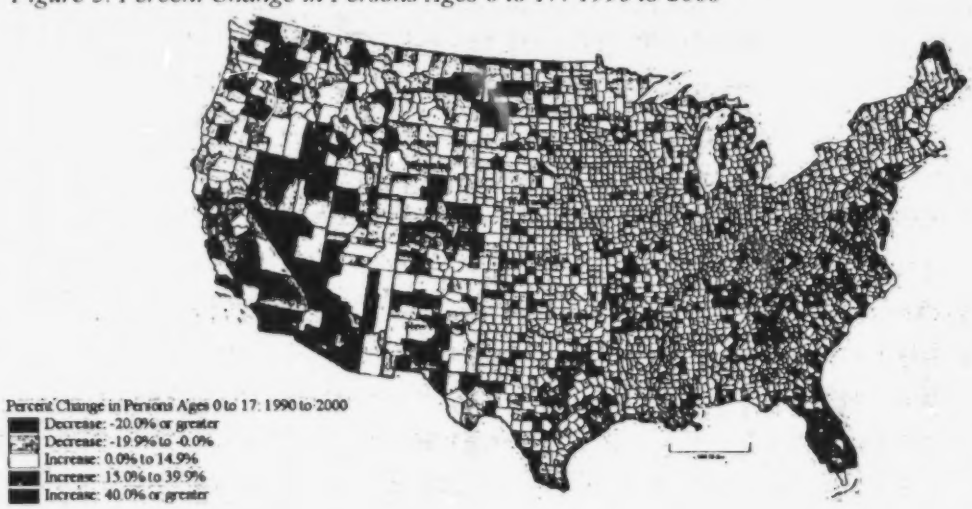
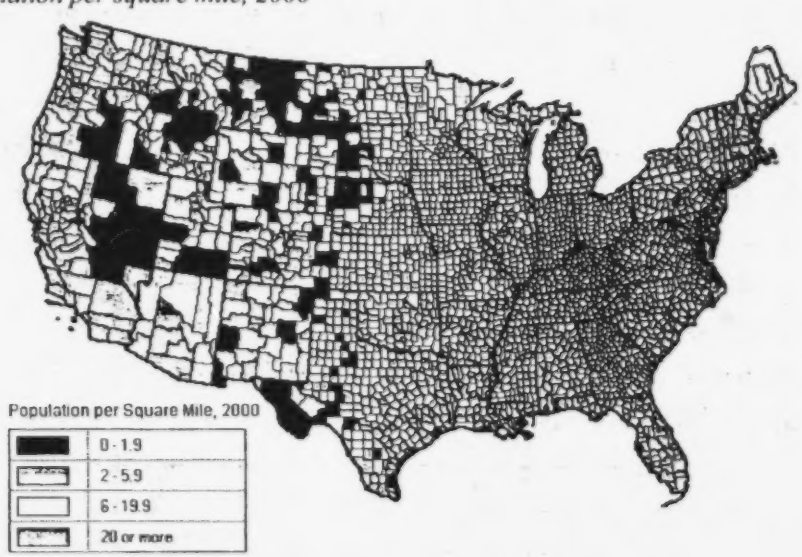
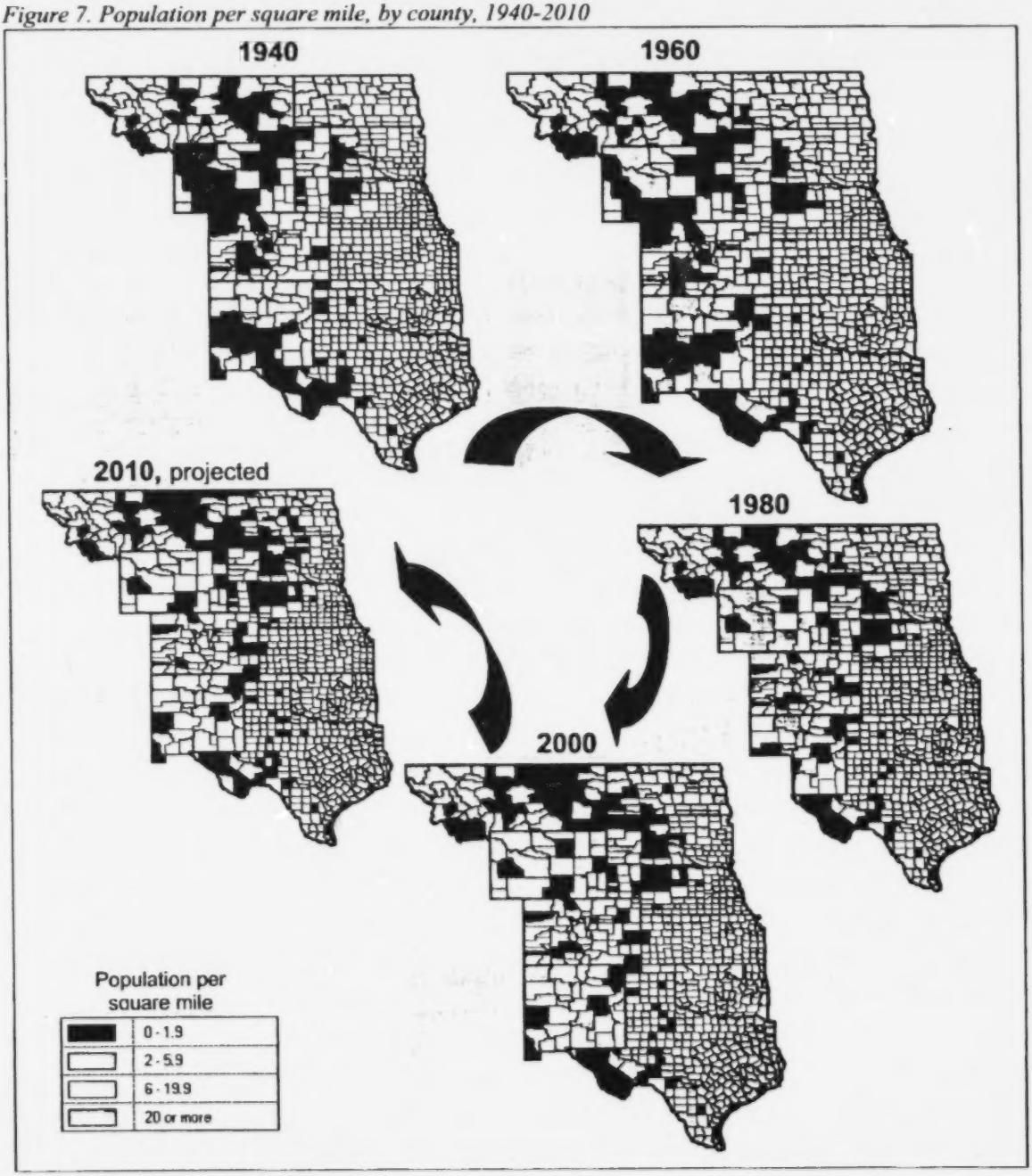

Percent Change in Persons Ages 0 to 17: 1990 to 2000
Decrease: -20.0% or greater
Decrease: -19.9% to -0.0%
Increase: 0.0% to 14.9%
Increase: 15.0% to 39.9%
Increase: 40.0% or greater

Figure 6. Population per square mile, 2000



The frontier may have been declared closed in 1890, but further evidence of the severity in outmigration in the Great Plains in particular can be seen in this series of maps, which chronicles the eastward movement of the frontier over the last half century and projected into 2010. The blue and dark blue counties represent the vacant and frontier counties – those with fewer than two and fewer than six people per square mile, respectively. The number and concentration of these counties increases over time.

Figure 7. Population per square mile, by county, 1940-2010



Frontier counties (with fewer than six people per square mile) have experienced this continued outmigration for much of the last century. While it is generally clear why some leave – changes in agriculture, loss of job opportunities – less frequently explored is why some remain. There is evidence that much of the frontier's populace is greatly reliant on government support, particularly in the form of farm subsidy payments.

The federal role in the life of the Great Plains region began with the Lewis and Clark expedition in 1804-1806. This exploration created an awareness of much of the region. This involvement continued with the creation of Indian reservations, the Homestead Act, military campaigns, the Missouri River water development program, the establishment of national parks, historical monuments, and national grasslands, the development of the interstate highway systems, and the federal farm programs. This involvement has consistently given the residents of the Great Plains the means and the reasons to be there. Subsidies and government land promotions have been making made the region enticing to settlers for over a century.

The federal government continues to be a major source of income for Great Plains residents and for farming and rural areas in particular. Farming areas in the Great Plains tend to show high reliance on federal funds overall, and per capital federal funds were ten percent higher in the Great Plains than the nation as a whole in 1995. Nonmetro Great Plains counties received 19 percent more federal funds per capital than the nation as a whole in 1995, a fact largely explained by the high levels of funds received by nonmetro farming-dependent counties.

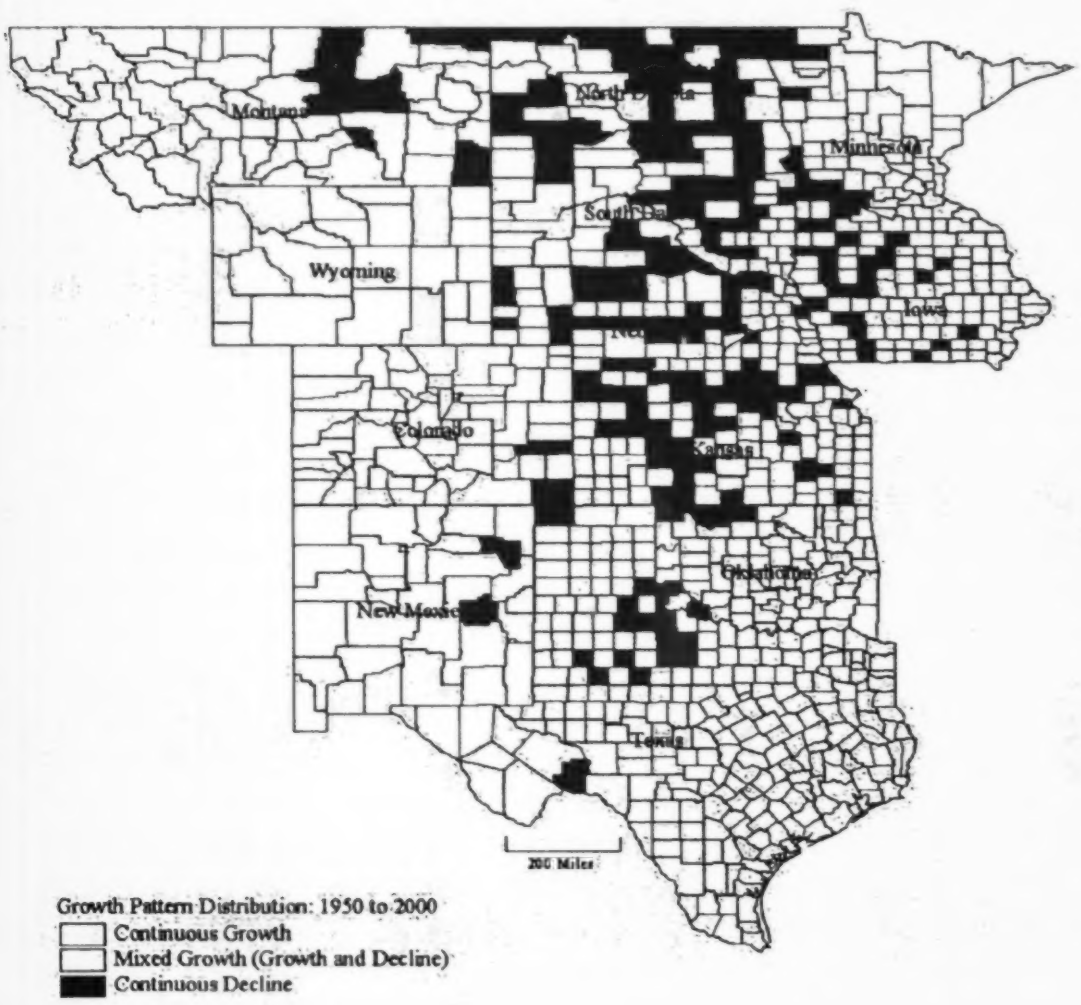
This effect stands out in frontier counties – those with fewer than six people per square mile. As the table below depicts, while farm payments are not a large portion of per capita income statewide, the proportion is much higher in frontier counties. Overall, frontier counties receive three to five times more of their per capita income from farm payments, compared to statewide. The same holds for other forms of government payments, such as Social Security.

Table 1. Reliance on Farm Payments and Other Government Payments

	Farm payments as percent of per capita income		Other government payments as percent of per capita income	
State	Frontier Counties	Statewide	Frontier Counties	Statewide
Nebraska	16.6	2.9	19.2	11.9
South Dakota	12.3	4.1	18.9	12.8

However, despite numerous attempts to keep the area settled and farmed through subsidies and support, many counties, particularly in the Great Plains region, have experienced continuous decline throughout the last century. The dark purple counties on the map below have experienced continuous decline in population from 1950 to 2000. Of course, as the adult population declines, student enrollment numbers decline in turn. For example, in Slope County, North Dakota, the population density has declined to just 0.6 people per square mile, with just 767 people. Marmath School District, which lies within Slope County, has just 10 students after a decline of 56 percent over the last five years, while Central Elementary School District, also in Slope County, has just 12 students after a 40 percent decline in the last five years.

Figure 8. Population Growth Patterns in the Great Plains States by County, 1950-2000

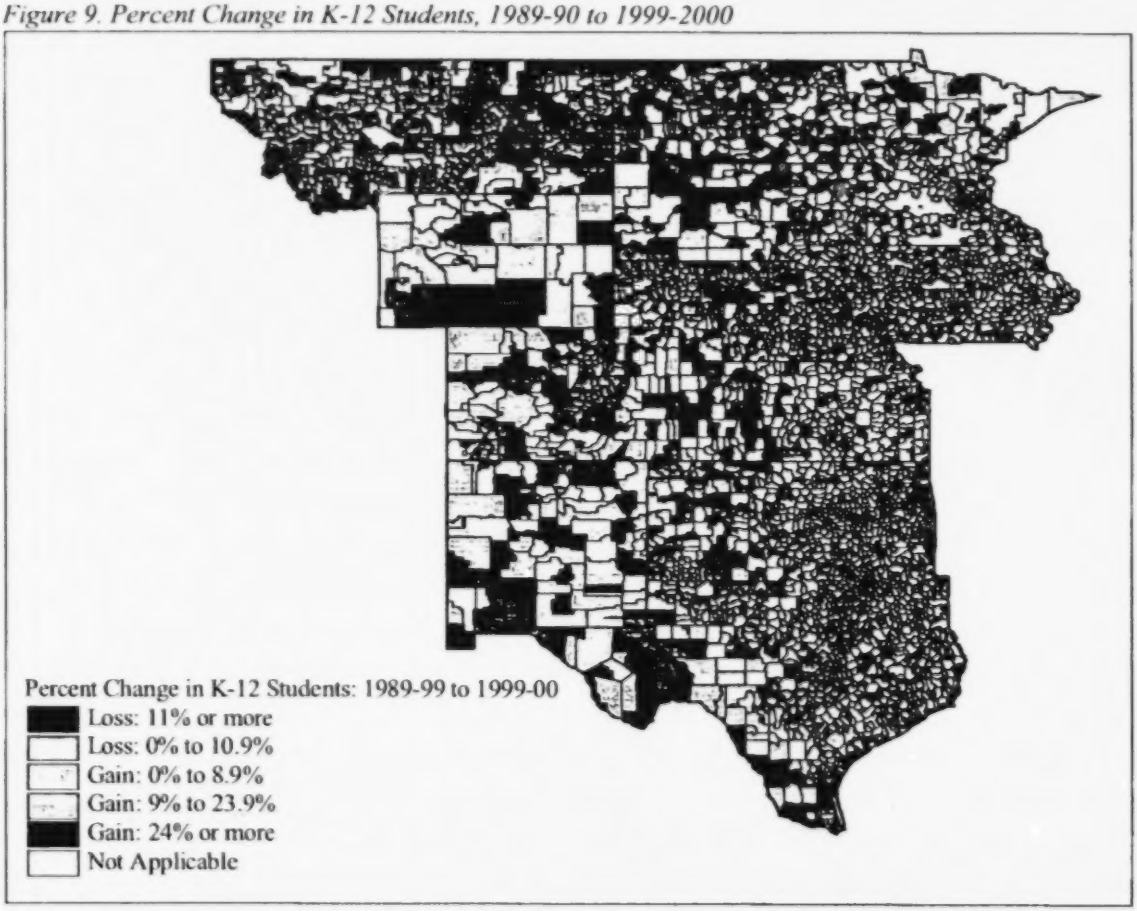


BEST COPY AVAILABLE

The extent of the decline in student enrollment in the Great Plains can be seen even more clearly in the map of school districts below. The difference of size in school districts in these particular states also stands out. While many rural school districts across the nation were consolidated in waves, mostly in the 1960s and continuing through the 1990s, Wyoming now has relatively large districts, while Nebraska, Kansas, and North Dakota still have many very small districts.

The issue of further consolidation still comes up in state legislatures and state departments of education almost yearly. In North Dakota, nearly every new legislative year produces new proposals to consolidate districts. In Nebraska, the state legislation postponed a 2001 bill that would consolidate many districts and close many schools. And in Kansas, a study commissioned by the state legislature and completed by a national consulting firm sought to determine if public schools could operate more efficiently under different configurations. The study examined spending and student achievement to identify schools that were "too small" or performing lower than should be expected given their size and level of spending. While the study generated considerable concern, most legislators face political pressure to resist consolidation. It is estimated that it will be two or three years before any action is taken based on the study.

Figure 9. Percent Change in K-12 Students, 1989-90 to 1999-2000


Percent Change in K-12 Students: 1989-99 to 1999-00
Loss: 11% or more
Loss: 0% to 10.9%
Gain: 0% to 8.9%
Gain: 9% to 23.9%
Gain: 24% or more
Not Applicable

The Challenges of Providing a Quality Education in Declining Counties

Attracting quality teachers and administrators can be a challenge in districts with declining enrollment. One sign of this in South Dakota, for example, is legislation that allows the use of the chief education officer (CEO) as district leader without any formal training in education. This is the result of the elimination of the requirement that district leaders have a superintendent's endorsement from the state. In 2000-2001, 19% of South Dakota's school districts were lead by CEOs. The primary reason cited by school boards for choosing the CEO option in a district is attributed to the lack of qualified candidates to fill the superintendent's role – a hint of the challenge of finding qualified administrators. Another example is the increasingly common superintendent who is also the principal – or a principal who performs the duties of a superintendent to save the board the cost of paying a district-wide leader.

The issue of attracting and retaining high-quality, certified teachers will only increase in urgency as the No Child Left Behind (NCLB)Act of 2001 is implemented, raising the bar for qualified teachers. One indicator of teacher quality is the number of teachers who have sought further education beyond a bachelor's degree in the form of a master's degree or other additional certification. While nationwide, about half of teachers possess only the bachelor's degree, that number is much higher in some rural states – approximately 80 percent in North Dakota, for example. That means more teachers without any additional graduate work, certification courses, or masters' degrees. Correspondingly, teacher salaries in the Great Plains tend to be much lower. This adds to the difficulty of attracting teachers. As recent as February 2003, the Helena, Montana school district attempted to remedy this issue by raising the starting teacher salary from $22,000 to $30,000 as part of a unique "alternative pay schedule" meant to attract new teachers.

Table 2. States with Above-Average Numbers of Rural Schools with Declining Enrollments and Their Average Teacher Salaries

National Ranking	State	Average salary, 2000-01
25	Colorado	$39,184
26	Texas	$38,359
31	Alabama	$37,606
33	Idaho	$37,109
34	Kentucky	$36,688
35	Arizona	$36,502
36	Iowa	$36,479
37	Utah	$36,441
38	Maine	$36,373
39	West Virginia	$35,888
40	Kansas	$35,766
42	Arkansas	$34,729
43	Wyoming	$34,678
44	Nebraska	$34,528
46	New Mexico	$33,531
47	Montana	$44,249
48	Oklahoma	$32,545
49	Mississippi	$31,954
50	North Dakota	$30,981
51	South Dakota	$30,265
–	*US Average*	*$43,250*

Rural schools are also more prone to out-of-field teaching. This is not surprising; a school with only two teachers is far more likely to have one teacher teaching multiple subjects – possibly without a degree. The table below looks at the total number of out-of-field teachers in a state and shows the percentage of those out-of-field teachers that are teaching in rural schools. In other words, of all the out-of-field teachers in South Dakota, 60 percent of them are in rural schools. Note that the ten lowest-ranked states are all in states experiencing declines in enrollments in rural schools (Figure 4).

Table 3. Percentage of Out-of-Field Teachers Who Are Rural – 10 Lowest-Ranked States

State and national rank	% of teachers teaching out-of-field who are rural	% of public schools in rural areas
50. South Dakota	60.0	73.5
49. Kansas	58.0	45.2
48. North Dakota	49.9	65.8
47. Montana	43.9	63.2
46. West Virginia	43.0	49.6
45. Mississippi	36.7	32.1
44. Iowa	36.5	47.8
43. Idaho	35.3	42.6
42. Minnesota	35.1	30.2
41. Oklahoma	34.6	41.7

As of now, these issues of administrator and teacher quality do not appear to have had a detrimental impact on rural or Great Plains students. Through distance learning, students may have access to teachers with expertise in subject areas that their own districts lack; the small class size and personal attention seems to make up for lack of resources or master teachers. And rural schools have tended to hold their own in terms of academic achievement, according to the National Assessment of Educational Progress. But as new federal regulations regarding teacher quality are implemented and schools are held increasingly accountable for continuously improving student performance, the reputation of rural schools may take a beating.

Teachers and other staff also often find themselves overburdened in small rural districts. The principal of South Platte Elementary and High School in Big Springs, Nebraska, for example, starts his day by shuttling students to school on the bus, then settles in for a day of principal duties as well as teaching four business classes. Evenings in the winter find him staying late to serve as the referee for basketball games. These extra duties and demands can make it difficult for schools to both attract and retain quality teachers and administrators.

As indicated above, low teacher salaries are a large factor in teacher quality, and those low salaries are often linked to the lower funding. Frontier school districts face a long list of obstacles when it comes to adequate funding. Most districts are funded on a per-pupil basis; the number of pupils keeps declining, but there is a cost of keeping a school district open such as maintaining buildings and hiring staff that does not decrease with the number of students.

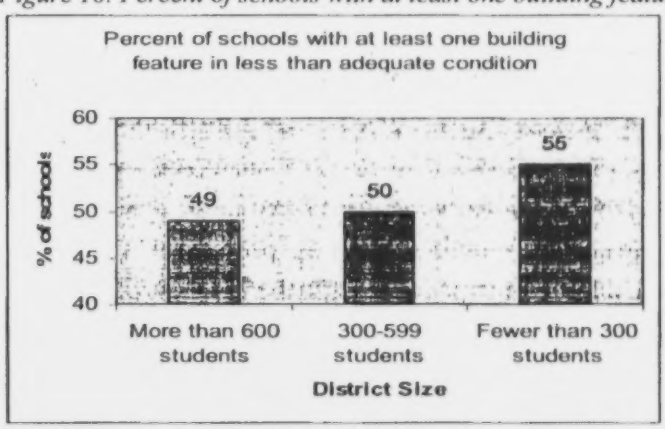
While many states have some sort of additional funding for "sparse" districts or other forms of assistance to make up for the additional funding needs, these amounts are often not nearly enough and often function in a stair-step manner, such that a district can lose 50 students but still be in the same funding category, while that 51st student may put them over a threshold into the next category down,

prompting additional funding. This is the case in Nebraska, for example. There, state funding formulas contain groups for three different types of districts used to calculate need: Sparse, Very Sparse, and Standard. In 2002, the Very Sparse Cost Grouping Cost was $6,483.60, the Sparse Cost Grouping Cost was $5,633.78 and the Standard Cost Grouping Cost per student was $4,814.02.

The challenges rural declining schools face in terms of funding issues influence every aspect of the quality of education they are able to provide. Lower budgets and decreased access to quality teachers often means fewer educational resources and fewer specialized courses and services. Some rural schools offer no advanced-placement courses, fewer years of foreign language, and can only teach hard sciences such as physics and chemistry in alternating years due to teacher shortages and funding. This is of concern since research shows that course availability and choices are key predictors of student achievement.

Along with difficulty obtaining adequate funding, small rural districts frequently face obstacles in improving their building facilities. Nationwide, the smaller the district, the more likely it is to have a building with a feature in less than adequate condition. Many states also have requirements that districts desiring funds for upgraded or new buildings must have stable or increasing enrollment. This allows states to deny small declining districts the opportunity to upgrade facilities.

Figure 10. Percent of schools with at least one building feature in less than adequate condition



The issue of facility quality tends to impact the elementary schools to a greater extent than the high schools. Better able to withstand the longer bus ride, high school students are more likely to attend larger consolidated high schools in better condition, while elementary students are more likely to attend neighborhood schools that continue to decline in enrollment and in funding.

Long bus rides are undoubtedly a way of life in these small declining counties, particularly for high school students. While no substantive data exist on the average length of bus rides for these counties, there is evidence that while a commonly cited standard for one-way duration for elementary children is 30 minutes, in 85 percent of rural elementary schools nationwide, the longest rides exceed this limit. In 25 percent of rural schools, in fact, the longest rides exceed 60 minutes. High school rides, for which the standard is usually 60 minutes, can be even longer.

The door-to-door length of the ride can be even longer. In some regions of North Dakota, for example, buses will only pick up students on the main county roads, rather than risk the long and often several-

BEST COPY AVAILABLE

mile long bumpy ride up the private roads that lead to farmhouses (usually located at the center of the family's land.) As a result, students are often driven to the county road by their parents, where they wait in the car – or outside – for the bus to arrive. In other regions, students must get to a pick-up point on their own. In Yaak, Montana, for example, one mother must drive her oldest son for an hour to the ranger station where he meets the bus for a one and a half hour ride to the county high school. This results in a total door-to-door time of two and a half hours.

The longest bus ride as associated with high poverty. In highest-poverty rural elementary schools as compared to lowest-poverty elementary schools:

- rides of 60 minutes or longer are three-quarters more common;
- double-routing rates (elementary and high school students on the same bus) are one-third higher;
- the proportion of mileage over mountainous terrain is almost double;
- the proportion of mileage over unpaved roads is nearly one-third higher; and
- full-time bus supervision is about one-third less common.

Little is known about the effect of such long and uncomfortable rides on students' academic development as well as on their health and well-being. Inconclusive data report that students with long bus rides suffer from sleep deprivation, lower grades, poorer levels of fitness, and loss in the choice of after-school activities. Policies related to busing can also impact a student's education; if a student is suspended from the bus for bad behavior, for example, most students have no other way to get to school and are more likely drop out.

Seeking Solutions in Declining Rural Districts

In the face of continued threats of consolidation, lower teacher quality and funding amounts, and continuously declining enrollment, what can a district can do to (a) ensure its survival and (b) continue to provide a quality education to its remaining students? Solutions range from reactive solutions such as creative budget cuts to proactive solutions such as distance learning. While there is no shortage of efforts to encourage economic and community development, success is often elusive. The question remains: will these solutions be enough as enrollment continues to drop? Will these schools be able to provide a quality education or do they need further solutions?

Creative Budgeting – Cooperative Agreements/The Four Day Week

Frontier districts often get creative in the search for ways to cut costs without cutting services to students, particularly in light of recent state budget shortfalls. Edgemont, South Dakota, in frontier Fall River County, provides a vivid example. Faced with a $240,000 shortfall, the district's leaders combined the middle school and the high school first, which eliminated the need for three teachers and a principal. Next, they cut the gifted student program, half of the guidance counselor's hours, full-time kindergarten, and recruited volunteers instead of paid coaches for track and wrestling. The superintendent/chief executive position was cut to half-time and combined with a technology post. Finally, they made the decision to cut Fridays, going to a four-day school week.

The four-day week is in use in about 100 rural districts nationwide, where most have found that it cuts transportation costs, although not personnel costs. Those who try it have found that the benefits include better attendance and morale, longer class periods, less time lost to extracurriculars and doctor's appointments as well as teacher training. Costs include complaints from working parents and concerns over elementary students' exhaustion. There are reports of better student achievement, but no conclusive evidence, although many teachers find the longer periods allow for better instruction.

Many school districts facing consolidation find a creative solution in cooperative agreements with nearby districts. Such agreements can allow for sharing of specialized teachers, such as the music teacher, media teacher, or foreign language teacher; other agreements allow districts to combine sports teams or administrators to cut costs, while retaining the school's individual identity.

In Lane County, Kansas, two districts, Dighton and Healy, currently share some teachers, and did not fill some teacher vacancies to cut costs. But as enrollment continues to decline, the districts may have to face the possibility of merging completely. Sports teams were the mechanism for sharing in Southern Cloud School District in Cloud County, Kansas. Homecoming pep rallies alternate between campuses each year. Practice and game locations alternate as well, and several sports staff members are shared between schools. The band, on the other hand, tends to play as one when competing, but practices separately. The arrangement allows the schools to stay open and provides more opportunities for students to participate in activities – each school might not be able to field a team if doing it alone.

The sharing is on multiple levels in the West Graham-Morland district, also in Kansas. There, the superintendent duties are shared with the Nes-Tre-La-Go school district and sports are combined with nearby Hill City school district, while Nes-Tre-La-Go shares sports with Healy school district. Nes-Tre-La-Go, West Graham-Morland, and Healy were all identified by the Kansas study on reorganizing schools as good candidates for reorganization.

Distance Learning and Technology

For many other frontier districts, distance learning and technology are an important part of any solution to maintain a good quality of course offerings for students. Through the internet, interactive television and other media, students in one school can participate in courses from another school. North Dakota has long had a Division of Independent Study, for example, which offers 179 one-semester course offerings for grades 5-12, 70 of which are available online. The Great Western Network (interactive television, videoconferencing, and internet) serves as another option, providing 25 courses. Many rural districts use interactive television distance-learning consortiums to offer foreign languages, advanced math and science, and other courses beyond the core curriculum to students. The technology allows groups of schools to "share" a teacher and maximize their curricular offerings. Many other Great Plains states have similar arrangements:

- Kansas: KAN-ED, if financed by the legislature, would set up a statewide computer network; would extend interactive distance learning to all school districts.
- Oklahoma: OneNet, Oklahoma State University Program provide online and distance learning courses
- Colorado: Colorado Online School Consortium offers 25 courses to ≈ 20 participating Great Plains districts

Still, only a small percentage of students have access to or currently take advantage of distance learning options, and in many states, forming consortiums for interactive television or other arrangements can be hampered by the large number of telecommunications service providers and telephone companies. It can be a major feat to get two or more phone companies to cooperate on providing lines for distance-learning services, and often, schools are the only location of high-bandwidth lines in a town, providing little motivation for phone companies to upgrade their services.

Internet access and computer access are also critical to the future of distance learning, and vary greatly across Great Plains states. Fortunately, internet access and computer access are relatively high in rural schools, which is promising.

Table 4. Access to Technology in Great Plains States

State	Students per instructional computer	% Rural schools with internet access
North Dakota	2.8	87.4
Texas	3.7	83.9
Wyoming	2.6	81.0
Nebraska	3.1	80.5
Kansas	2.8	78.7
Colorado	4.0	78.5
South Dakota	2.4	76.7
New Mexico	3.6	64.3
Montana	3.2	61.8
Oklahoma	4.0	43.3

Regional Service Units/Educational Service Agencies

As an alternative to consolidation, some states have or are considering implementing or increasing the use of regional service units to take over some of the services normally provided by districts to increase efficiency and economies of scale. Such policies can include mechanisms to ensure access to cooperative purchasing agreements, shared staff development programs, shared special education services, curriculum development services, and management support services, such as payroll. In many cases, these mechanisms can be delivered via educational service agencies. Some states, such as North Dakota, do not have an educational service agency system in place. That state, in addition to considering different strategies for consolidating more school districts, has also considered establishing regional service units.

Conclusion

Enrollments in many low-density rural counties continue to decline, threatening districts with not only the possibility of consolidation but a decline in the quality of education as well. AASA proposes continued research and a series of meetings with state association executives, superintendents of afflicted districts, and experts in the field to discuss ways to help ensure that students in those districts continue to receive the highest possibly quality of education. We hope to examine issues including:

- What are states doing to solve the problems related to declining enrollments?
- What do school system leaders in low-density declining enrollment counties suggest be done, given limited resources?
- What are the consequences for students as school sizes dwindle to smaller and smaller numbers?
- When is school or district consolidation inappropriate, and when might it be appropriate? What would be the most optimal way to run a school in frontier areas?
- What would it take to attract, retain, and continue to develop highly qualified teachers and administrators to these areas?
- What comes after consolidation no longer makes sense?

By examining these and other pertinent questions, AASA can move toward providing leadership for addressing the needs of students in these vacant and declining counties.

Map, chart and table references

Figure 1: Percent Change in Population Ages 0 to 17 By County. Source: U.S. Census Bureau, 1990 and 2000 Decennial Census. Map from North Dakota State Data Center

Figure 2: Percent Change in Total Population by County. Source: U.S. Census Bureau, 1990 and 2000 Decennial Census. Map from North Dakota State Data Center

Figure 3. Change in Farm Size Over Time. Source: Compiled by ERS from Census of Agriculture Data. In "Farm Numbers: Largest Growing Fastest," *Agricultural Outlook*, October 2002. Economic Research Service/USDA.

Figure 4: Percentage of Rural Schools with Declines in Enrollment of at Least 10%, 1993-97. Source: "Why Rural Matters: The Need for Every State to Take Action on Rural Education:" A Report by Elizabeth Beeson, Policy Analyst; Marty Strange, Policy Director, Rural School and Community Trust. 2002.

Figure 5. Percent Change in Population Ages 0 to 17 By County. Source: U.S. Census Bureau, 1990 and 2000 Decennial Census. Map from North Dakota State Data Center

Figure 6. Population per square mile, 2000. Source: Data for year 2000 from U.S. Bureau of the Census. Proximity, Alexandria, VA.

Figure 7: Population per square mile, by county, 1940-2010. Source: Data for year 2000 and earlier from U.S. Bureau of the Census. Proximity, Alexandria, VA. Projections for 2010 developed by Warren Glimpse, Proximity, Alexandria, VA

Table 1: Reliance on Farm Payments and Other Government Payments. Source: Data from Cordes, Sam and Van der Sluis, Evert. "The Contemporary Role of the Federal Government in the Great Plains Economy: A Comprehensive Examination of Federal Spending and Related Fiscal Activities," *Great Plains Research,* 11 (Fall 2001): 301-25. p. 320.

Figure 8: Population Growth Patterns in the Great Plains States by County: 1950-2000. Source: U.S. Census Bureau, 1990 and 2000 Decennial Census. Map from North Dakota State Data Center.

Figure 9: Percent Change in K-12 Students, 1989-90 to 1999-2000. Source: Common Core of Data, Local Education Agency University Survey, 1989-90 and 1999-2000. Map from North Dakota State Data Center

Table 2: States with Above-Average Numbers of Rural Schools with Declining Enrollments and Their Average Teacher Salaries. Data compiled by AASA. Source: "Why Rural Matters: The Need for Every State to Take Action on Rural Education:" A Report by Elizabeth Beeson, Policy Analyst; Marty Strange, Policy Director, Rural School and Community Trust. 2002 and American Federation of Teachers, annual survey of state departments of education. Early Estimates of Public Elementary and Secondary Education Statistics, 2000-2001. U.S. Department of Education, May 2002.

Table 3: Percentage of Out-of-Field Teachers Who are Rural – 10 Lowest-Ranked States. Source: "Why Rural Matters: The Need for Every State to Take Action on Rural Education:" A Report by Elizabeth Beeson, Policy Analyst; Marty Strange, Policy Director, Rural School and Community Trust. 2002.

Figure 10. Percent of schools with at least one building feature in less than adequate condition. Source: "Policy Issues Concerning School Facilities" from the Rural School and Community Trust, http://rurla.edu.org/keep_learning.cfm?record_no=559 accessed November 2002. Chart compiled by AASA.

Table 4. Access to Technology in Great Plains States. Source: "Why Rural Matters: The Need for Every State to Take Action on Rural Education:" A Report by Elizabeth Beeson, Policy Analyst; Marty Strange, Policy Director, Rural School and Community Trust. 2002.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

[X] This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

[ ] This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").